REMARKS

In light of the above-amendments and remarks to follow, reconsideration and allowance of this application are requested.

Claim 20 has been rejected under 35 U.S.C. § 112, second paragraph for allegedly being indefinite. Applicant respectfully directs the Examiner's attention to page 3, lines 16-20 and page 13, lines 1-3 of the specification which clearly describes that "round trip engineering support" means "iterative development cycle" that "matches the exact signature of the method and the parameters to synchronize the component model with the added business logic." However in order to expedite the prosecution of this application, applicant has amended claim 20 to replace "round trip engineering support" with "support for iterative development cycle." It is respectfully requested that the rejection of claim 20 be withdrawn.

Claims 1-20 have been rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 6,018,627 to Iyengar et al. (Iyengar) in view Anne Thomas, "Container-Managed Persistence," Patricia Seybold Group, December 1998 (Thomas). Applicants respectfully traverse this rejection.

To establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP 2143.

The Examiner has failed to establish a prima facie case of obviousness because the combination of Iyengar et al. and Thomas does not teach or suggest all the claim limitations of claim 1.

Applicants respectfully submit that only the present invention teaches or suggest "embedding code markers in said EJB source code to enable subsequent updates to said EJB source code," as required in claim 1.

As admitted by the Examiner, Iyengar does not teach or suggest generating code for EJB components from a business process. Contrary to the Examiner's assertion, Iyengar "uses the Unified Modeling Language ("UML") object model as the generic format of representing much of the output data (emphasis added) (Iyengar, col. 2, lines 34-36). That is, the output data generated by various development tools are "transformed into a generalized format data [i.e., UML] based on a set of object classes defined and stored in a repository" (Iyengar, col. 2, lines 31-33). Applicant additionally direct the Examiner's attention to the following passages in Iyengar: "These allow a user to discover legacy systems and transform them into UML" (col. 7, lines 35-36) and "During the transform process 75 (see FIG. 2a) of legacy integration 26 (see FIG. 1), discovered legacy items are transformed into UML models" (col. 8, lines 25-27).

Even assuming arguendo that Iyengar is somehow related to the present invention of generating EJB source code for EJB components from a business process as alleged by the Examiner, Iynegar does not teach or suggest "embedding code markers in said EJB source code to enable subsequent updates to said EJB source code," as required in claim 1 of the present invention. The Examiner incorrectly asserts that

> "Iyengar discloses how the design allows any language to be incorporated with the design (column 9, lines 32-35, Iyengar). Iyengar's design also allows for business logic (Figure 3, Iyengar), which is equivalent to the claimed embedding code marker" (Office Action, page 3, paragraph 1, lines 12-16).

In fact, col. 9, lines 32-25 in Iyengar, cited by the Examiner, merely states that "The system allows developers to use the language of their choice in writing the method, including Java, C++, Visual Basic, ... COBOL". Since applicant has not claimed such well-known feature of enabling programmers to write in various programming language, applicant is lost as to how this fact is relevant to the present case.

Additionally, the Examiner cites Figure 3 to incorrectly assert that business logic is equivalent to the claimed embedding code marker. Applicant directs the Examiner's attention to column 4, lines 12-20 in Iyengar, which clearly establishes that Iyengar's business logic is at best equivalent to the claimed business process:

> "The next step in the development flow may be to write and edit business logic, that is, the methods for the business processes. This is accomplished in the business logic 29 stage. The methods

are then built and wrapped into components in the component building phase 30. Built components are assembled into applications in the application assembly stage 31. Finally, applications are deployed to the appropriate environments in the application deployment 32 stage."

Hence, Iyengar is clearly referring to editing the business process/logic (i.e., pre-component building phase) and not EJB source code as incorrectly asserted by the Examiner. Applicant respectfully submits that the Examiner cannot use hindsight gleaned from the present invention to reconstruct or modify Iyengar to render claims unpatentable, especially if such reconstruction contradicts the clear teachings of the reference.

Accordingly, applicants respectfully submit that Iyengar merely describes an editing tool that essentially enables the developer to edit the business process/logic, whereas the present invention provides a method for generating code for EJB components from a business process and embedding code markers in the EJB source code to enable subsequent updates to the EJB source code.

In other words, Iyengar merely describes modifying the business logic and enabling the programmer to use her preferred programming language and contrary to the Examiner's assertion, Iyengar does not teach or suggest modifying the EJB source code by "embedding code markers." This, of course, is feature recited by independent claim 1 and not found in Thomas, as admitted by the Examiner.

Even assuming *arguendo* that such combination is proper, since the combination of Iyengar and Thomas does not teach or suggest embedding the code markers in the EJB source code to enable subsequent updates to the EJB source code, as required in claim 1 of the present invention, applicants respectfully submit that the Examiner has failed to establish the basic requirements of a prima facie case of obviousness. Therefore, applicants respectfully submit that independent claim 1 (and dependent claims 2-20) are nonobvious under 35 U.S.C. §103.

Further, the combination of Iyengar and Thomas does not teach or suggest "adding business logic code between said code markers" embedded in the EJB source code and "synchronizing said UML model with said business logic code, thereby providing round trip engineering support" (emphasis added), as required in claims 19 and 20, respectively. Moreover, applicants respectfully submit that one of ordinary skill in the art would not find that editing the

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business logic for building components as described in Iyengar is equivalent to embedding the code markers in the EJB source code to enable subsequent updates to the EJB source code as required in claim 1 of the present invention. Applicants respectfully request that the Examiner provide a reference that one of ordinary skill in the art would find that editing the business logic used for building the components is equivalent to adding business logic code between the code markers embedded in the EJB source code to enable subsequent updates to the EJB source code.

Furthermore, there is no motivation in Thomas or in Iyengar that the teaching of these two references should be combined. In re Sernaker, 217 U.S.P.Q. 1, 6 (Fed. Cir. 1983); SmithKline Diagnostics, Inc. v. Helena Laboratories Corp., 8 U.S.P.Q. 2d 1468, 1475 (Fed. Cir. 1988); In re Fritch, (Fed. Cir. 1992) 91-1318; In re Laskowski, 10 U.S.P.Q. 2d 1397, 1299 (Fed. Cir. 1989); In re Fine, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1988).

The decision of In re Geiger, 2 U.S.P.Q. 2d 1276 (1987) is quite relevant. There, the Federal Circuit stated:

> "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination."

*   *   *

> "At best in view of these [prior art] disclosures, one skilled in the art might find it obvious to try various combinations of these known [agents]. However, this is not the standard of 35 U.S.C. Section 103."

Moreover, absent applicants' disclosure, there appears to be absolutely no reason to add Thomas to Iyengar so as to provide a method for generating code for EJB components from a business process and embedding code markers in the EJB source code to enable subsequent updates to the EJB, especially since these two references are concerned with completely different problems. In fact, the only reason one might turn to Thomas, if at all, is because of the hindsight gleaned from applicant's own disclosure. The Federal Circuit has been consistent in warning against hindsight reconstruction of the prior art. As pointed out in Uniroyal v. Redkin-Wiley, 5 U.S.P.Q. 2d, 1434, 1438 (Fed. Cir. 1988):

> "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some

reason for the combination other than the hindsight gleaned from the invention itself. ...Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination."

*   *   *

"...it is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention."

In Uniroyal, the CAFC referred to Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Company, 221 U.S.P.Q. at 489, to conclude that "the mere fact that a device or process utilizes a known scientific principal does not alone make that device or process obvious." 5 U.S.P.Q. 2d at 1440.

In Orthopedic Equipment Company, Inc. v. United States, 217 U.S.P.Q. 193-199 (Fed. Cir. 1983), the Federal Circuit warned,

"The difficulty which attaches to all honest attempts to answer this question [of obviousness based upon a combination of prior art] can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of nonobviousness in a court of law."

In reversing an Examiner's rejection based upon obviousness, wherein the Examiner concluded that a claimed apparatus is shown simply by turning a prior art reference "upside down," the CAFC ruled:

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."

In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984), and citations noted therein.

In view of the foregoing, it is respectfully submitted that one of ordinary skill in the art, after reading and understanding Iyengar, would not even turn to Thomas – and if she did, she would not understand how or why Iyengar's description of transforming the output data into a

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generalized format data should be combined with Thomas' description of the EJB persistence mechanisms.

Further, it undeniable that neither Iyengar nor Thomas is even remotely concern with the problem of providing provisions for subsequent updates by embedding code markers into the EJB source code, synchronizing the model and code, and round trip engineering support (i.e., support for iterative development cycle). Since applicant has recognized a problem not addressed by the cited prior art and solved that problem in a manner not suggested by either Iyengar or Thomas, the basis for patentability of the claims is established. See In re Wright, 6 U.S.P.Q. 2d, 1959, 1961-1962 (Fed. Cir. 1988). There, the CAFC relied upon previous decisions requiring a consideration of the problem facing the inventor in reversing the Examiner's rejection. "The problem solved by the invention is always relevant". Id. at 1962. See also, In re Rinehart, 189 U.S.P.Q. 143, 149 (CCPA 1967), which stated that the particular problem facing the inventor must be considered in determining obviousness.

Absent evidence that the specific problem of providing provisions for subsequent updates, synchronizing the model and code, and round trip engineering support was even recognized by the prior art, there can be no finding that the invention as a whole would have been obvious. As stated by the PTO Board of Appeals in Ex parte Breidt and Lefevre, 161 U.S.P.Q. 767, 768 (1968), "an inventive contribution can reside as well in the recognition of a problem as in a solution". It further appears that the conclusion reached by the Board of Appeals in Ex parte Minks, 169 U.S.P.Q. 120 (1969), is here in point. There, the Board concluded that "[a]ppellant having discovered the source of the problem and solved the same . . . he is . . . entitled to patent protection". Id. at 121.

In view of the foregoing difference and authorities, it is submitted that the present invention recited in independent claim 1 is patentably distinct over the combination of Iyengar and Thomas. Additionally, since neither Iyengar nor Thomas is even aware of the problem addressed by applicant, and since the cited prior art reference does not suggest the solution defined by claim 1, these claim are unobvious and patentably distinct over the combination of Iyengar and Thomas. Accordingly, it is requested that the rejection of claim 1-20 under 35 U.S.C. §103 be withdrawn.
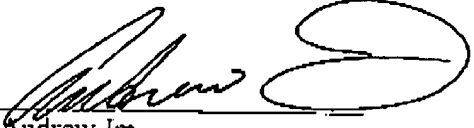
Statements appearing above in respect to the disclosures in the cited references represent the present opinions of applicant's undersigned attorney and, in the event that the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the reference providing the basis for a contrary view.

On the bases of the above remarks, reconsideration and allowance of claims 1-20 are respectfully requested.

Applicant believes no fee is due. However, if a fee is due, please charge our Deposit Account No. 50-0624, under Order No. **THEOR 203.1 (10107432)** from which the undersigned is authorized to draw.

Respectfully submitted,

By
C. Andrew Im
Registration No.: 40,657
FULBRIGHT & JAWORSKI L.L.P.
666 Fifth Avenue
New York, New York 10103
Attorneys for Applicant

(212) 318-3000
(212) 318-3400 (fax)